

Ministry of Education and Science of the Republic of Kazakhstan
L.N. Gumilyov Eurasian National University
Faculty of Information Technologies, “Artificial Intelligence” Scientific
Research Institute



**Kazakhstan Academy of
Artificial Intelligence**



PROGRAM
of the X International Conference on
Computer processing of Turkic Languages
«TURKLANG 2022»

16-18 June 2022

Nur-Sultan, 2022

Program Committee:

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25. Rakhimova Diana (Almaty, Kazakhstan)
26. Chumakaev Aleksey (Gorno-Altaysk, Altay, Russia)

Conference procedures

Location: Kazakhstan, Nur-Sultan city, L.N. Gumilyov Eurasian National University, Satpayev str., 2

Rules of the Conference

Plenary session: 20 minutes

CMLS seminar: 20 minutes

Sessions: 15 minutes

Zoom meeting link:

<https://us02web.zoom.us/j/86564026120?pwd=OUVKenpHSnRXVDdjNXIIUW1HR0xKQT09>

Conference ID: 865 6402 6120

Passcode: 212742

Conference Schedule

Time (Nur-Sultan GMT+6)	Activities
16 June 2022	
9.00-10.00	Registration
10.00-10.30	Opening
10.30-11.50	Plenary session
11.50-13.00	Excursion to ENU Museums
13.00-14.00	Lunch Break
14.00-18.10	Seminar «Computational Models in Turkic Language and Speech»
17 June 2022	
9.00-10.30	Session 1. Turkic languages as the basis for the creation of new intelligence technologies and knowledge processing systems
10.30-10.45	Coffee Break
10.45-12.15	Session 2. Technologies for morphological, syntactic and semantic text processing
12.15-13.00	Session 3. National Localization of Computer Systems and Terminology
13.00-14.00	Demonstration of software systems

	Lunch Break
14.00-16.15	Session 4. Electronic text and audio corpus of the Turkic languages
16.15-16.30	Coffee Break
16.30-17.00	Session 5. Semiotic models of information representation and processing in artificial intelligence systems
17.00-18.30	Session 6. Turkic Internet resources, ontologies, thesauri and dictionaries
18.30-19.15	Session 7. Intelligence Technologies for Learning Turkic and Foreign Languages
19.15-19.30	CLOSING OF THE CONFERENCE

PROGRAM

OPENING

16.06.2022

Main Building, 2 Satpayev str., Room 206

9.00.- 10.00	Registration to the Conference
10.00- 10.30	Opening Welcome speech – Yerlan Sydykov – Chairman of the Management Board – Rector of the L.N. Gumilyov Eurasian National University; – Bakytzhan Zhumagulov – Deputy of the Senate of the Parliament of Kazakhstan; – Seidikasym Baibekov – President - Rector of the Kazakh University of Technology and Business.

PLENARY SESSION

Date: 16.06.2022, Time: 10.30-13.00

Moderator: Dikhan Kamzabekuly

Building 1, 2 Satpayev str., Room 206

Time	Authors	Affiliation	Title
10.30- 10.50	Dikhan Kamzabekuly	Doctor of Philology Sciences, Professor, Academic, Member of the Management Board – Vice Rector for Social and Cultural Development of the L.N. Gumilyov Eurasian National University, Nur-Sultan, Kazakhstan	KANYSH – THE SCIENTIST OF ALASH

10.50-11.10	Altynbek Sharipbay	Doctor of Technical Sciences, Professor of the Artificial Intelligence Technologies Department, L.N. Gumilyov Eurasian National University Nur-Sultan, Kazakhstan	PROBLEMS OF CREATING THE ALPHABET OF THE KAZAKH LANGUAGE BASED ON THE LATIN GRAPHICS
11.10-11.30	Dzhavdet Suleymanov	Doctor of Technical Sciences, Professor Chief Researcher of the Institute of Applied Semiotics of the Academy of Sciences of the Republic of Tatarstan Kazan, Tatarstan, Russia	INFOCOMMUNICATION TECHNOLOGIES AND THE TATAR LANGUAGE
11.30-11.50	Ualsher Tukeyev	Doctor of Technical Sciences, Professor of the Information Systems Department Al-Farabi Kazakh National University, Almaty, Kazakhstan	TURKIC LANGUAGES PROCESSING ACCORDING TO THE COMPUTATIONAL MODEL OF MORPHOLOGY BASED ON A COMPLETE SET OF ENDINGS
11.50-13.00	EXCURSION TO ENU MUSEUMS		
13.00-14.00	LUNCH BREAK		

**Seminar «COMPUTATIONAL MODELS IN TURKIC LANGUAGE
AND SPEECH»**

*Date: 16.06.2022, Time: 14.00-18.10
Moderators: G. Bekmanova, R. Gilmullin
Building 2, 11 Pushkin Street, room 222*

14.00-14.20	Ayrat Gatiatullin, Nikolai Prokopyev, Dzhavdet Suleymanov	Institute of Applied Semiotics of Tatarstan Academy of Sciences, Kazan, Tatarstan, Russia; Kazan Federal University, Kazan, Tatarstan, Russia	On the issue of creating a unified conceptual space of Turkic electronic corpora with usage of “Turkic Morpheme” web-portal
14.20-14.50	Diana Rakhimova, Aliya Turganbayeva, Yntymak Abdrazakh	Al-Farabi Kazakh National University; Institute of Information and Computational Technologies, Almaty, Kazakhstan	About the problem of identifying morphological errors in the Kazakh language
14.50-15.10	Nilufar Abdurakhmonova, Alisher Ismailov	National university of Uzbekistan, Tashkent, Uzbekistan; Andijan Machine Building institute, Andijan City, Uzbekistan	The development of Uzbek stemmer for Uzbek Language
15.10-15.30	Nikolai Prokopyev, Dzhavdet Suleymanov	Institute of Applied Semiotics of Tatarstan Academy of Sciences; Kazan Federal University, Kazan, Tatarstan, Russia	Knowledge control system based on pragmatically-oriented algorithm of natural language question-answer texts processing

15.30-15.50	Diana Rakhimova, Yerkin Suleimenov Gulstan Akhmet	Al-Farabi Kazakh National University; Institute of information and computational technologies, Almaty, Kazakhstan	The task of synthesizing the Kazakh language based on machine learning
15.50-16.10	Zhanibek Kozhirbayev, Zhandos Yessenbayev, Talgat Islamgozhayev	National Laboratory Astana, Nazarbayev University, Nur-Sultan, Kazakhstan	Speech-to-speech translation for the Kazakh language: Review
16.10-16.30	Alymzhan Toleu, Gulmira Tolegen, Rustam Mussabayev Alexander Krassovitskiy	Institute of Information and Computational Technologies, Almaty, Kazakhstan	A Comparative Study of Methods for Topic Modeling
16.30-16.50	Madina Mansurova, Nurgali Kadyrbek, Marzhan Kyrgyzbayeva Mukhamedzhan Mombekov	Al-Farabi Kazakh National University, Almaty, Kazakhstan	Automatic Predicate-argument Structure Extraction (PAS) based on Deep Learning
16.50-17.10	Ahmet Toprak, Metin Turan	İstanbul Commerce University, Istanbul, Turkey	Generating Automatic Turkish Summary Corpus with NLP
17.10-17.30	Elina Makipova Iskander Akhmetov	CHE, KIMEP University; Institute of Information and	Researching the Khazar language, current state and issues

		Computational Technologies, Almaty, Kazakhstan	
17.30-17.50	Nurzada Amangeldi, Bibigul Razahova, Nazira Tursynova, Yenglik Kadyr, Nuraly Sarbupeyev	L.N. Gumilyov Eurasian National University, Nur-Sultan, Kazakhstan	Segmentation and identification of skin cancer class (malignant or non-malignant) based on the Mask-RCNN model
17.50-18.10	Saule Kudubaeva, Dana Nurgazina	L.N. Gumilyov Eurasian National University, Nur-Sultan, Kazakhstan	Semantic analysis of sign language during translation from text to KSL
SESSION 1. TURKIC LANGUAGES AS THE BASIS FOR THE CREATION OF NEW INTELLIGENCE TECHNOLOGIES AND KNOWLEDGE PROCESSING SYSTEMS <i>Date: 17.06.2022, Time: 9.00-10.30</i> <i>Moderators: A. Sharipbay, N. Abdurakhmonova</i> <i>Building 2, 11 Pushkin Street, room 222</i>			
9.00-9.15	D. Suleymanov, R. Gilmullin, I. Muhametzyanov	Institute of Applied Semiotics of the Academy of Sciences of Tatarstan Republic, Kazan, Tatarstan, Russia	On the potential of the grammar of the tatar language for the development of the intelligent systems
9.15-9.30	A. Balsaidov	Almaty Technology University Almaty, Kazakhstan	Pre-processing shown for best text recognition
9.30-9.45	I. Ismayilov	Azerbaijan University of Architecture and	Application of the structural expert

		Civil Engineering, Baku, Azerbaijan	system in etymological research
9.45- 10.00	G. Syzdykova	L. N. Gumilyov Eurasian National University Nur-Sultan, Kazakhstan	A. Baitursynuly on the types and use of punctuation marks
10.00- 10.15	N. Amangeldy, S. Kudubayeva, N. Tursynova, S. Abdieva, A. Erbolatova, A. Baimahanova	L. N. Gumilyov Eurasian National University Nur-Sultan, Kazakhstan	Comparative analysis of the demonstration forms of the Kazakh sign language words with other sign languages
10.15- 10.30	Sh. Muratbekova	Tashkent State University of Uzbek language and literature named after Alisher Navoiy Tashkent, Uzbekistan	How to create text validation software for a plugin
10.30- 10.45	COFFEE BREAK		
SESSION 2. TECHNOLOGIES FOR MORPHOLOGICAL, SYNTACTIC AND SEMANTIC TEXT PROCESSING <i>Date: 17.06.2022, Time: 10.45-12.15</i> <i>Moderators: B. Razakhova, A. Gatiatullin</i> <i>Building 2, 11 Pushkin Street, room 222</i>			
10.45- 11.00	A. Sairanbekova G. Bekmanova	L.N.Gumilyov Eurasian National University Nur-Sultan, Kazakhstan	Determination of negative sentiment in a text based on machine translation
11.00- 11.15	S. Kudubayeva, B. Zhussupova	L.N. Gumilyov Eurasian National University,	About the possibility of taking into account the semantic

		Nur-Sultan, Kazakhstan; A. Baitursynov Kostanay regional university, Kostanay, Kazakhstan	component in the surdo translation system from Kazakh language into Kazakh sign language
11.15- 11.30	A. Abdysadyr uulu	Office of the Administration of the President of the Kyrgyz Republic Bishkek, Kyrgyzstan	The method of binary links for visualization of the meaning of a sentence
11.30- 11.45	Sh. Khamroeva	Tashkent State university of Uzbek language and literature named Alisher Navai Tashkent, Uzbekistan	Finite state machine model of nouns for Uzbek language morphological analyzer
11.45- 12.00	A.Nasrullayeva, A.Mukanova	Astana International University, Nur-Sultan, Kazakhstan	Research and analysis of mechanisms for detecting prohibited content on the internet
12.00- 12.15	I. Oralbekova, B. Yergesh	L. N. Gumilyov Eurasian National University Nur-Sultan, Kazakhstan	Analysis of the tonality of comments about hotels in the Kazakh language
SESSION 3. NATIONAL LOCALIZATION OF COMPUTER SYSTEMS AND TERMINOLOGY <i>Date: 17.06.2022, Time: 12.15-13.00</i> <i>Moderator: A. Mukanova, L. Zhetkenbay</i> <i>Building 2, 11 Pushkin Street, room 222</i>			
12.15- 12.30	Sh. Seilov, Zh. Akhmetova, Zh. Zulpykhar	L. N. Gumilyov Eurasian National University	Methodological problems of translating terms into Kazakh and their development in

		Nur-Sultan, Kazakhstan	the field of digital economy
12.30- 12.45	Iliuf Khazhi- Murat	Shakarim State University Semey, Kazakhstan	On the improvement of terminology in the Kazakh language
12.45- 13.00	A. Kozhakhmet	L. N. Gumilyov Eurasian National University Nur-Sultan, Kazakhstan	Cognitive nature of teaching a scientific text
13.00- 14.00	Demonstration of software systems Lunch Break		
SESSION 4. ELECTRONIC TEXT AND AUDIO CORPUS OF THE TURKIC LANGUAGES <i>Date: 17.06.2022, Time: 14.00-16.15</i> <i>Moderators: D. Rakhimova, R. Niyazova</i> <i>Building 2, 11 Pushkin Street, room 222</i>			
14.00- 14.15	D. Mukhamedshin	Institute of Applied Semiotics of the Academy of Sciences of Tatarstan Republic, Kazan, Tatarstan, Russia	Some new search and research capabilities of the corpus data management system
14.15- 14.30	G. Madiyeva, M. Mansurova	Al-Farabi Kazakh National University Almaty, Kazakhstan	On the development of educational materials on corpus linguistics
14.30- 14.45	Zh. Sakenova, B. Matkarimov	L. N. Gumilyov Eurasian National University Nur-Sultan, Kazakhstan	Musical corpora of song recordings in turkic languages and turkic music

14.45- 15.00	M. Abjalova	Tashkent State University of Uzbek Language and Literature named after Alisher Navoi, Tashkent, Uzbekistan	The author's corpus of Alisher Navoi and its importance
15.00- 15.15	B. Khakimov, M. Shaekhov	Institute of Applied Semiotics of the Tatarstan Academy of Sciences Kazan Federal University, Kazan, Russia	Comparative quality evaluation of the russian-tatar machine translation systems using the parallel test corpus
15.15- 15.30	A. Lespekova, A. Mukanova, G. Yelibayeva	L. N. Gumilyov Eurasian National University Nur-Sultan, Kazakhstan	Creating a text corpus to identify prohibited content
15.30- 15.45	N. Abdurakhmonova, U. Tuliyeu, A. Ismailov, G. Abduvahobo	National university of Uzbekistan, Tashkent, Uzbekistan; Andijan Machine Building institute, Andijan, Uzbekistan Fergana state university, Fergana, Uzbekistan	Uzbek electronic corpus as a tool for linguistic analysis
15.45- 16.00	B. Khakimov	Kazan Federal University, Kazan, Tatarstan, Russia	On the issue of developing a parallel corpus for error correction systems in texts in the Tatar language

16.00-16.15	E. Kutdusova, N. Prokopyev	Kazan Federal University Kazan, Tatarstan, Russia	Tatar speech synthesis with deep learning based on Vits model
16.15-16.30	COFFEE BREAK		
SESSION 5. SEMIOTIC MODELS OF INFORMATION REPRESENTATION AND PROCESSING IN ARTIFICIAL INTELLIGENCE SYSTEMS <i>Date: 17.06.2022., Time: 16.30-17.00</i> <i>Moderators: B. Yergesh, G. Yelibayeva</i> <i>Building 2, 11 Pushkin Street, room 222</i>			
16.30-16.45	M. Mangmurnyn, A. Sharipbay	L. N. Gumilyov Eurasian National University Nur-Sultan, Kazakhstan	The frame model of the document template
16.45-17.00	A. Aktaeva, A. Kubigenova, G. Esmagambetova	Kokshetau University named after Sh.Ualikhanov, Kokshetau, Kazakhstan; Kazakh Agrotechnical University named after S. Seifullin, Nur-Sultan, Kazakhstan; Mongolian University of Science and Technology, Ulaanbaatar, Mongolia	Semantic aspects of security in Blockchain technologies: Cryptosemantics

**SESSION 6. TURKIC INTERNET RESOURCES, ONTOLOGIES,
THESAURI AND DICTIONARIES**

Date: 17.06.2022, Time: 17.00-18.30

Moderators: A. Omarbekova, R. Turebayeva

Building 2, 11 Pushkin Street, room 222

17.00-17.15	R. Burnashev, M. Galimov	Institute of Applied Semiotics of the Academy of Sciences of Tatarstan Republic Kazan, Tatarstan, Russia	Building intelligent language information resources using geoinformation system
17.15-17.30	Z. Nizomova	Tashkent State University of Uzbek Language and Literature named after Alisher Navoi, Tashkent, Uzbekistan	The importance of the thesaurus of chemical terms
17.30-17.45	A. Sharipbay, A. Omarbekova	L. N. Gumilyov Eurasian National University Nur-Sultan, Kazakhstan	The structure of the database of terms of school subjects and the types of queries to them
17.45-18.00	A. Kadir Khan	National Scientific and Practical Center «Til-Kazyna» named after Sh. Shayakhmetova Nursultan, Kazakhstan	Orthogram and features of the use of the word «independent»
18.00-18.15	B. Zhumash, A. Mukanova	L. N. Gumilyov Eurasian National University Astana International University	Development of a transport tax information system based on an ontological model

		Nur-Sultan, Kazakhstan	
18.15- 18.30	L. Orynbay, A. Sairanbekova, G. Yelibayeva, G. Bekmanova	L. N. Gumilyov Eurasian National University Nur-Sultan, Kazakhstan	Methods of determining the structure of the semantic database of kazakh names
SESSION 7. INTELLIGENCE TECHNOLOGIES FOR LEARNING TURKIC AND FOREIGN LANGUAGES			
<i>Date: 17.06.2022 y., Time: 18.30-19.15</i> <i>Moderators: Zh. Akhmetova, Zh. Zulpykhar</i> <i>Building 2, 11 Pushkin Street, room 222</i>			
18.30- 18.45	Zh. Abisheva, B. Razakhova	L.N.Gumilyov Eurasian National University Nur-Sultan, Kazakhstan	Gamification in education
18.45- 19.00	A. Bekbauova, N. Gilmanova	Aktobe regional university named after K.Zhubanov Aktobe, Kazakhstan	Application of CLIL technology in teaching algebra
19.00- 19.15	A. Alkhanov, R. Turebaeva, B. Matkarimov	L.N.Gumilyov Eurasian National University Nur-Sultan, Kazakhstan	Creating a knowledge base model for an automated multiple choice questions generating system
19.15- 19.30	CLOSING OF THE CONFERENCE		

